

-J04918

2009-02-13

## HYDRAULIC PISTON & CYLINDER W/ SEALS & O-RINGS KIT

### GENERAL

#### Kit Number

X2086.1AM

#### Models

For the most up-to-date model fitment information, see product label or [www.buell.com](http://www.buell.com) (English only).

#### Additional Parts Required

##### ⚠ WARNING

Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)

##### NOTE

*This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a Buell Dealer.*

### Kit Contents

See Figure 6 and Table 1.

##### ⚠ CAUTION

Direct contact of D.O.T. 4 brake fluid with eyes can cause irritation. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 4 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. (00240a)

##### NOTICE

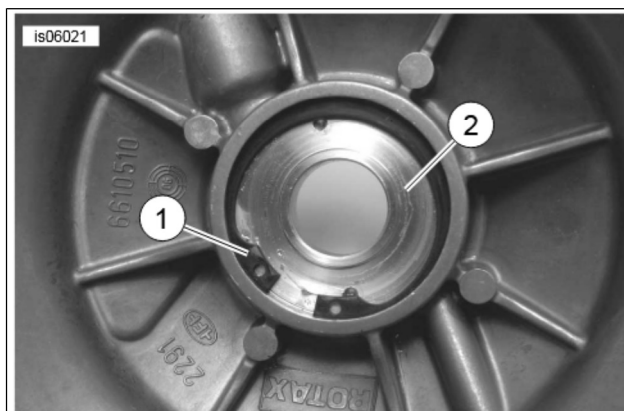
DOT 4 brake fluid will damage painted and body panel surfaces it comes in contact with. Always use caution and protect surfaces from spills whenever clutch work is performed. Failure to comply can result in cosmetic damage. (00582b)

### SECONDARY ACTUATOR REPAIR

#### Disassembly

1. Refer to the Buell 1125 service manual to remove the secondary clutch actuator.
2. Remove spherical nut O-ring and discard.
3. Remove the two piston sealing rings and discard

4. See Figure 1. Remove circlip (1).
5. Remove piston sleeve (2) from secondary actuator cover using even pressure.
6. See Figure 2. Remove two O-rings (1) from piston sleeve and discard.



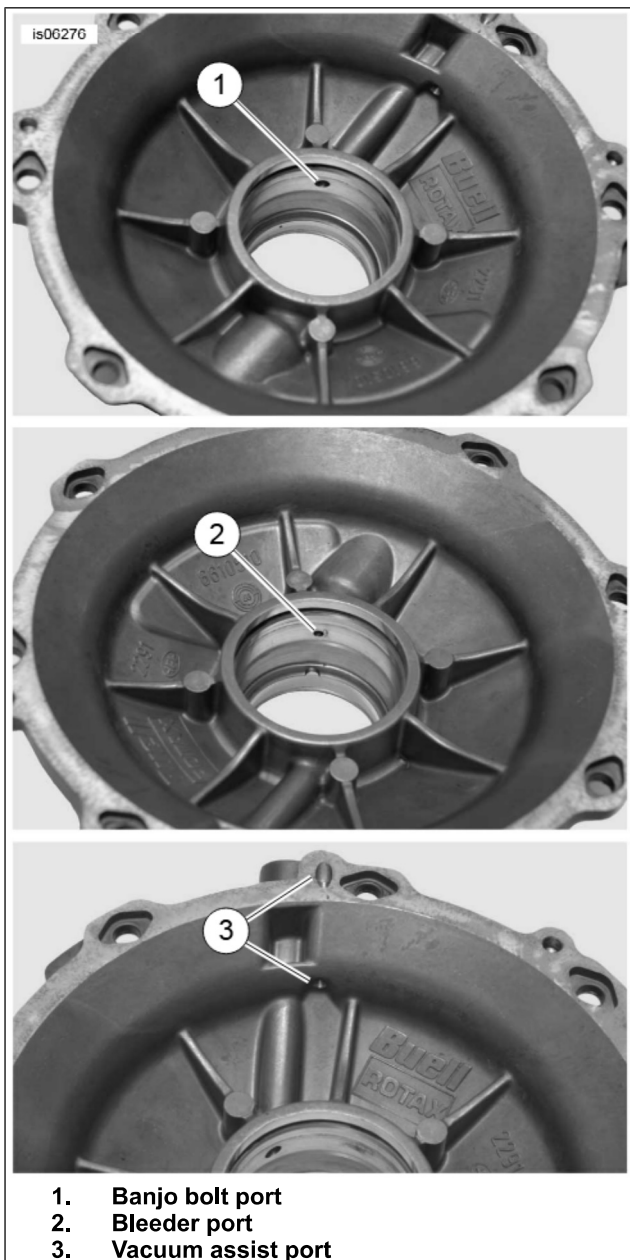
1. Circlip
2. Piston sleeve

Figure 1. Piston Sleeve Circlip



1. O-ring (2)
2. Piston sleeve ports

Figure 2. Piston Sleeve



1. Banjo bolt port
2. Bleeder port
3. Vacuum assist port

Figure 3. Secondary Actuator Cover

## Cleaning and Inspection

### ▲ WARNING

Compressed air can pierce the skin and flying debris from compressed air could cause serious eye injury. Wear safety glasses when working with compressed air. Never use your hand to check for air leaks or to determine air flow rates. (00061a)

1. See Figure 2. Verify piston sleeve ports (2) are free from obstructions. Clear ports using compressed air.
2. See Figure 3. Inspect secondary actuator cover banjo bolt port (1), bleeder port (2) and vacuum assist port (3) for obstruction. Clean ports using compressed air.
3. Inspect pressure relief hole in cover for obstruction. Clear port with compressed air.

### ▲ WARNING

Use denatured alcohol to clean clutch system components. Do not use mineral-based solvents (such as gasoline or paint thinner), which will deteriorate rubber parts even after assembly. Deterioration of these components can cause clutch failure, which could result in death or serious injury. (00296a)

### NOTE

**DO NOT** let brake fluid to come in contact with the cover plug (see Figure 5, item 1). Brake fluid may stain the paint and damage the graphic.

4. Wash all components in clean D.O.T. 4 brake fluid or denatured alcohol.
5. See Figure 5. Inspect piston (5), piston sleeve (9) secondary actuator cover, spring (8) and spherical nut (3) for scoring, pitting or other damage. Replace as necessary.

## Assembly

1. Lubricate all components and **new** O-rings with D.O.T. 4 brake fluid.
2. Install two **new** O-rings on the piston sleeve.
3. See Figure 3. Inspect pressure relief hole (2) for obstruction.
4. Align piston sleeve notch with indexing tab on secondary actuator cover and install sleeve into cover using steady pressure.

### ▲ WARNING

Be sure circlip snaps in place. An unsecured circlip can cause clutch failure, which could result in death or serious injury. (00584b)

5. See Figure 5. Install circlip.
6. See Figure 4. With the flare and sealing ring grooves facing each other, install two **new** hydraulic piston liners (6)
7. Install **new** spherical nut O-ring.
8. Refer to the Buell 1125 service manual to install the secondary clutch actuator.

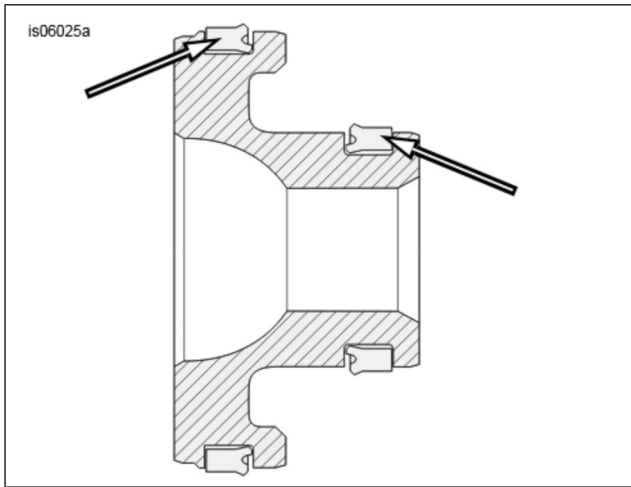


Figure 4. Correct Installation of Hydraulic Piston Linings

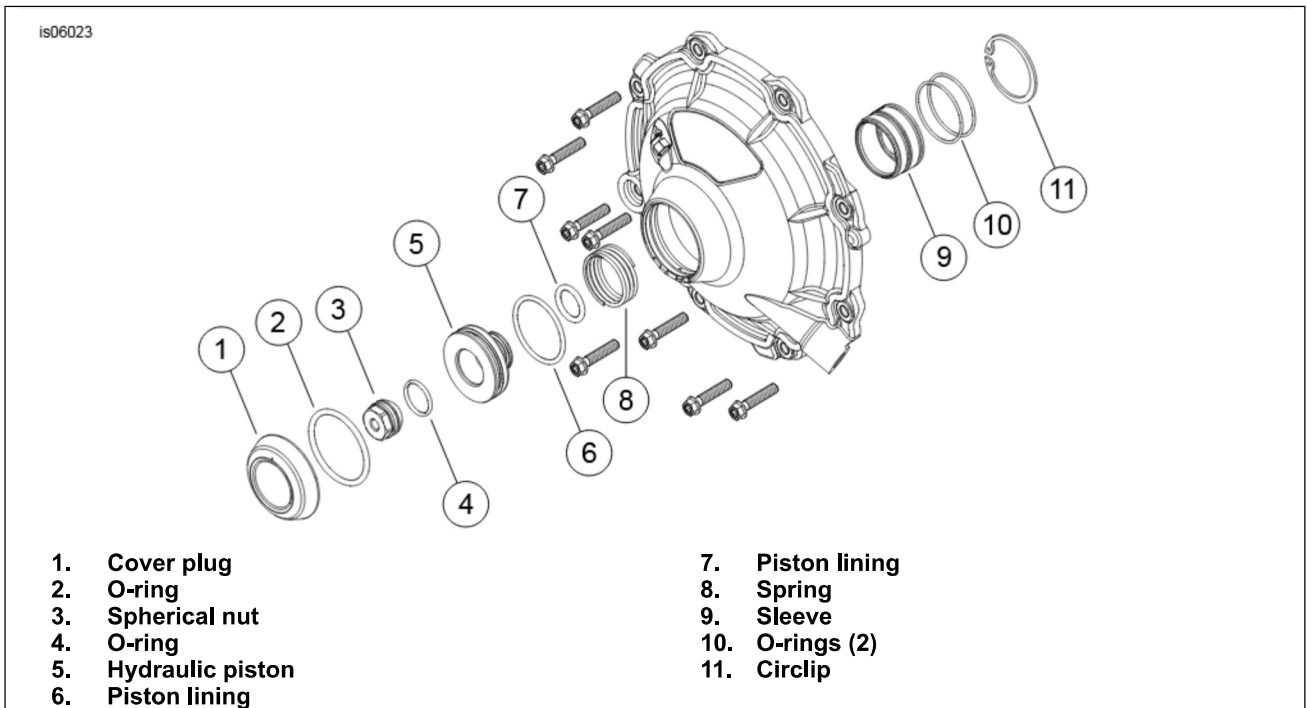


Figure 5. Secondary Clutch Assembly

**SERVICE PARTS**

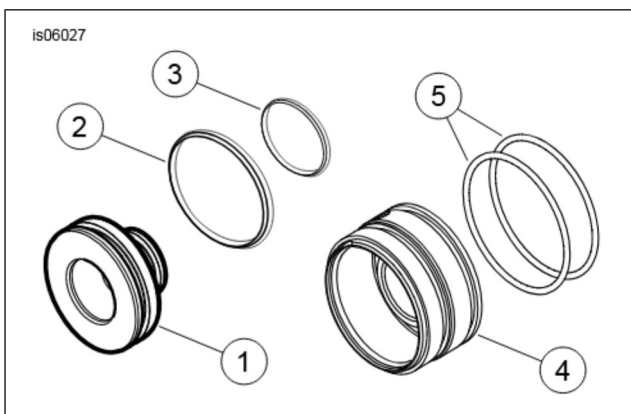


Figure 6. Service Parts: Secondary Actuator

Table 1. Service Parts: Secondary Clutch Assembly

Item	Description (Quantity)	Part Number
4	Sleeve	X0087-3AM
5	O-rings (2)	CF0007.1AMA

Table 1. Service Parts: Secondary Clutch Assembly

Item	Description (Quantity)	Part Number
1	Hydraulic piston	X0086.3AM
2	Piston lining (large)	CR002.3AM
3	Piston lining (small)	CR0001.3AM